



Buffalo



Steel Pressure Blowers



Steel Pressure Blower for High Pressure Service

Catalog 178, Section K
1910



Buffalo Two-Stage Turbine Blower

This blower delivers air at double the pressure of an ordinary centrifugal blower with a blast wheel of equal diameter, running at the same speed. This result is obtained by the special design and construction of the blower.

The housing is of heavy cast iron designed and constructed to resist the strains of high pressure duty. It is constructed in sections and so provides quick and easy access to the interior for the inspection and removal of parts.

The air is handled in two different stages by two blast wheels mounted upon a single shaft. These blast wheels are built of heavy steel plate, wings and rims mounted on a steel spider.

The vanes of wheel are secured to the hub tangently and are so curved that the velocity of the air is gradually increased until it is slightly above that of the wheel, when it is discharged into the pressure chamber surrounding the first wheel, whence it is drawn into the second stage and again discharged at a pressure double that obtained in the first stage.

These blowers are equipped with dust proof oil-ring bearings, with large oil reservoirs. These bearings require little attention beyond an occasional oiling. Whenever the width of the blower requires, an additional bearing is located in the pressure chamber between the two stages.

High pressure is obtained with this blower without excessive speed, making it possible to drive the blower with a direct-connected electric motor. This motor is connected to the blower with a flexible coupling of special design, which also acts as an insulator between the motor and the blower.

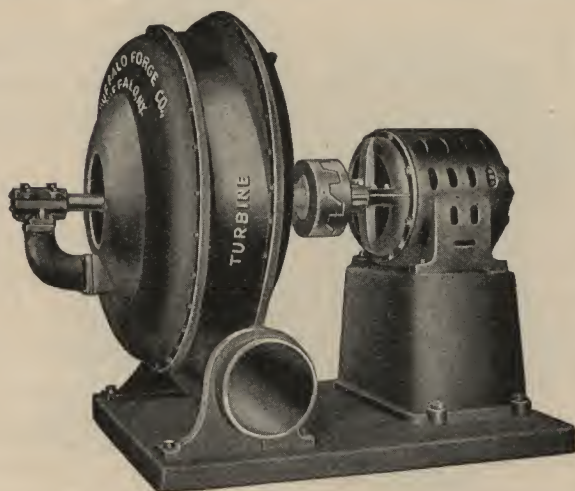
Another advantage offered by this outfit is the saving of floor space. It occupies the same amount of space as an ordinary blower with a blast wheel of the same diameter without the necessary belts and counter-shaft.



BUFFALO FORGE COMPANY



● Buffalo Two-Stage Turbine Blower



Direct-Connected to Motor for High Pressure Duty

Table of Speed, Capacities and Horsepower for Cupola Service

Size	Cubic Feet Air Per Min.	Oz. Pres. Per Sq. In.	Revolutions Per. Min.	Horse- power	List Price of Blower with- out Sub-base
35 In.	1500	10	2400	8	\$ 210.00
40 "	2700	12	2400	15	270.00
45 "	3600	14	2200	27	345.00
55 "	4800	16	1800	42	480.00
65 "	6400	16	1800	56	675.00
75 "	8000	16	1200	70	825.00
85 "	10000	16	1200	85	975.00
95 "	12000	16	900	98	1125.00
105 "	15000	16	900	120	1300.00

Furnished with electric motors for direct or alternating current. Prices quoted on receipt of particulars. Give characteristics of electric current available.

INDIANA STEEL COMPANY

BUFFALO FORGE Co., Buffalo, N. Y.

GARY, INDIANA, March 16, 1909.

Subject—Foundry.

Gentlemen:—Replying to your letter of recent date inquiring about centrifugal turbine blowers furnished in connection with our foundry cupolas, I have taken this matter up with our mechanical department and they advise that these fans have been working for three months and have given satisfaction in every way.

Yours truly,

F. H. MOYER,
Chief Engineer.



BUFFALO FORGE COMPANY



Buffalo Steel Pressure Blowers

Buffalo Steel Pressure Blowers are built with a solid peripheral shell or casing. The side plates fit this shell tightly and are securely bolted in place. This avoids the use of putty joints and the smooth inner surface offers no friction.

A great advantage of the Buffalo Pressure Blower is the ease of repairs, the wheel and shaft being removable through the side opening made by removing either one of the side plates, and without completely dismantling the blower.

The blast wheel is of heavy rolled steel plate mounted upon a malleable iron spider or hub. The backward turned blades or vanes are securely riveted to heavy steel side flanges, the principal blades being also riveted to an arm of the spider. Every detail of construction of these blast wheels insures perfect balance, ease and smoothness of operation, combined with strength and rigidity.

Each blast wheel is carefully tested for both strength and balance beyond that required by the service to be performed. This insures a perfect, durable, easy-running blower.

Buffalo Pressure Blower bearings are ring-oiling, with reservoirs of capacity for a month's run. The journals are extra long and lined with the best babbitt metal. They are mounted upon rigid arms or brackets and babbitted in position, making lack of alignment absolutely impossible.

The ring of this bearing operates perfectly quiet until the oil supply becomes low. Any noise or rattling of the ring, therefore, is a signal for re-oiling, though the bearings will run for some time after the signal is noticed.

DEWEY PORTLAND CEMENT COMPANY

DEWEY, OKLA., March 11, 1909.

BUFFALO FORGE CO., St. Louis, Mo.

Gentlemen:—Yours of the 8th and we are pleased to state that the special pressure blowers which you furnished us for mixing the air with the natural gas for our rotary kilns have given complete satisfaction.

Yours truly,

DEWEY PORTLAND CEMENT CO.

By H. F. TYLER.



Buffalo Steel Pressure Blower



Direct-Connected to Motor.

Only one bearing is provided, at the opposite end from the motor. This bearing is of the dust-proof, oil-ring type, used on all Buffalo Steel Pressure Blowers. Motor and blower are mounted upon a common sub-base. Motor is connected to blast wheel with flange coupling.

When ordering, state nature of current and specify voltage. If alternating current also, give phase and cycles or alternations per minute.

For Forges and Furnaces

No. of Blower		SPEEDS, CAPACITIES AND HORSEPOWERS								
		4 oz.	6 oz.	7 oz.	8 oz.	9 oz.	10 oz.	11 oz.	12 oz.	
6	Speed	2573								Prices quoted on receipt of information concerning quantity of air, pressure required, characteris- tics of elec- tric current, etc.
	Cap.	839								
	H.P.	1.75								
7	Speed	2275	2750							
	Cap.	1000	1275							
	H.P.	2.25	4.30							
8	Speed	2060	2500	2697						
	Cap.	1500	1918	2065						
	H.P.	3.25	6.50	8.00						
9	Speed	1850	2240	2414	2580					
	Cap.	2130	2720	2930	3120					
	H.P.	4.75	9.00	11.25	13.60					
10	Speed	1384	1675	1800	1928	2040				
	Cap.	3100	3960	4275	4560	4790				
	H.P.	6.75	12.9	16.20	19.60	23.00				
11	Speed	1150	1390	1500	1600	1700	1790	1878		
	Cap.	3850	4880	5260	5610	5900	6250	6540		
	H.P.	8.50	15.75	19.80	24.00	28.50	33.50	38.50		
12	Speed	940	1130	1220	1300	1380	1450	1525	1590	
	Cap.	5000	6360	6860	7320	7690	8150	8540	8900	
	H.P.	10.75	20.50	25.00	31.30	36.90	43.50	50.00	57.00	



Buffalo Steel Pressure Blowers

The steam turbine is particularly suited for direct connection to pressure blowers, owing to its high speed, simplicity of construction and efficiency. The Turbine Blower set is very compact and occupies only a fraction of the space required by an engine and belt-driven blower. They require very little attention beyond oiling and are started or stopped by simply opening or closing the steam valve.

The blower is of the standard Buffalo type, including a one-piece shell to which the side plates are bolted.

The blast wheel is constructed of sheet steel, and is carefully trued up and balanced, assuring smooth running without vibration.

To oil the bearings simply remove the plug at the top of the journal.

These blowers are built of the best material by the most skilled and competent workmen. Every part including the smallest is carefully fitted and inspected. This attention to detail produces an efficient blower for high pressure service. Your careful inspection and comparison is invited.

These blowers are used for many purposes, among which are, supplying blast to forge, furnace and cupola fires, for sand blast machines and wherever air is to be forced any distance, as in pneumatic tubes, for mine ventilation, tunnel work, in glass factories for brazing torches, and many special applications.

The tables give the range of speeds and pressures obtainable; the horsepower and corresponding capacities are such as may be obtained only by the best design, and afford reliable information on this important point.

These blowers are furnished with or without adjustable bed and countershaft.

WELLSVILLE, N. Y.

To Whom it May Concern:—

We have had in service for the past three months a Kerr Steam Turbine and Buffalo Steel Pressure Blower furnishing blast to over 40-in. cupola. The unit has run very satisfactorily and has given us no trouble whatever. The blast is 12 to 14 ozs. at the cupola and is maintained steadily during the heat.

We consider the direct connection a decided advantage over the usual belt drive, both because of the steadier blast and freedom from any danger of belt breakage and consequent loss of heat. We formerly used eight barrels of coke for our bed, but since installing the Turbine Blower we have cut this down to five or six. This increased economy we consider partly due to a better quality of coke and partly to the steady heavy pressure maintained by the Turbine Blower.

We heartily recommend the direct-connected Turbine unit for foundry use.

Very truly yours,

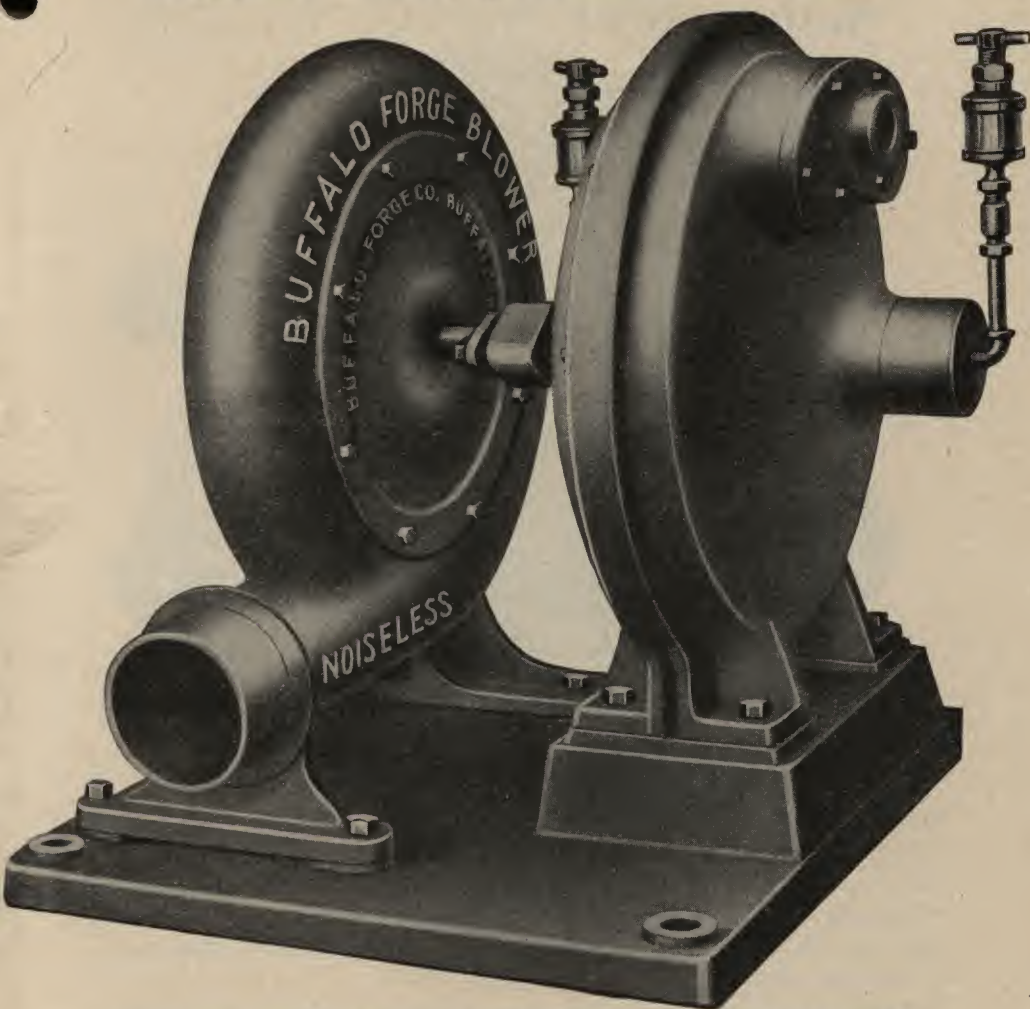
McEWEN BROS.,
by P. J. Moynahan,
Foundry Foreman.



BUFFALO FORGE COMPANY



Buffalo Steel Pressure Blower



Direct-Connected to Steam Turbine for Large Volumes at High Pressure

No. of Blower	Maximum Speed	Maximum Pressure oz.	Maximum Capacity	Maximum H. P.	Size of Turbine	Approx. Weight	Combined List Price
4	5457	11	970	6	12 in.-2	585	\$ 440.00
5	5760	16	1320	12	12 in.-2	630	498.00
6	5020	16	1495	13	12 in.-2	715	529.00
7	4440	16	2040	18	12 in.-4	1484	1052.00
8	4040	16	3060	31	12 in.-4	1621	1252.00
9	3620	16	4340	37	12 in.-6	2255	1340.00
10	2700	16	6335	55	18 in.-6	3700	1970.00
11	2250	16	7800	67	18 in.-7	4520	2282.00
12	1830	16	10000	87	24 in.-8	7710	3324.00

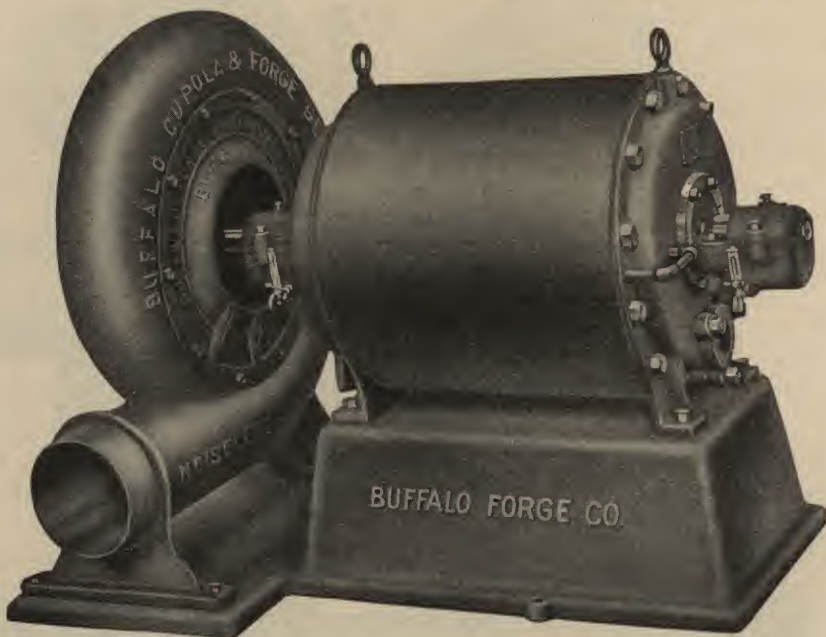
The outfits may be operated at any speed up to the maximum given in above table.



BUFFALO FORGE COMPANY



Buffalo Steel Pressure Blowers



Steel Pressure Blower Direct Connected to Steam Turbine

Buffalo Steel Pressure Blowers direct connected to steam turbines produce compact, economical and efficient units. The turbine supplies directly the rotary motion required by the blast wheel. The turbine and blast wheel, therefore, are keyed to the same shaft, completely unifying the equipment, at the same time greatly increasing its efficiency. The compact unit thus produced occupies but little space, and can readily be placed in the most convenient location.

This unit has no complicated parts to require constant attention. To operate, just turn on or shut off the steam to start or stop it, and occasionally fill the oil cups to insure lubrication. That is all.

The steam consumption is small, and where steam engines are used to supply power for the plant the exhaust steam from an engine is utilized in the turbine, rendering the operating expense practically nil.

The speed is easily regulated, and any desired pressure up to 16 ounces obtained.

See Preceding Page for Sizes and Prices



BUFFALO FORGE COMPANY



Buffalo Steel Pressure Blowers

Dust Proof Ring-Oiling Bearings



Pulley Driven

Buffalo Steel Pressure Blowers are designed and built especially to withstand the strains of high-pressure duty. For supplying blast to cupolas, furnaces, forge fires, sand-blast machines, and for any work where air is to be forced for a long distance, as in pneumatic-tube systems, their utility needs no demonstration.

A distinguishing feature of the construction, common to blowers of no other manufacture, is the solid peripheral shell, with the side plates securely fastened thereto. This allows a tight fit to be made, resulting in a blower of maximum strength and rigidity, greatly superior to those formed with a central putty joint. The long, adjustable bearings, of the standard Buffalo oil-ring type, are so carried as to preclude any possibility of incorrect alignment.

The smaller sizes of blowers, Nos. 1 to 6, have but one pulley, while Nos. 7 to 12 have two pulleys.



Buffalo Steel Pressure Blowers

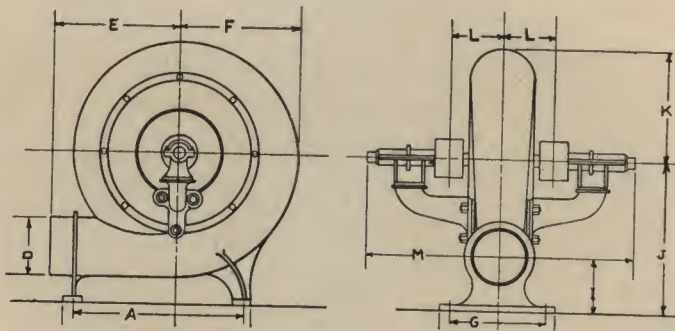


Table of Dimensions and Prices

Size No.	A	D	E	F	G	I	J	K	L	M	Pulley		Shipping Weight	Price Without Counter-shaft	Price With Counter-shaft
											Diam.	Face			
1	7 1/8	3 1/2	7	5 3/8	6 3/8	27 3/8	7	5 1/2	3	14 1/2	2 1/4	1 3/4	55	\$12.00	\$20.00
2	10	4	8 1/2	6 1/2	6 1/4	33 3/8	9 1/4	6	4	19 1/2	2 3/4	2 1/4	75	18.00	28.00
3	13	4 3/4	11 1/4	8 1/4	7	35 3/8	10 3/4	8 1/2	4 3/8	23	3	2 5/8	95	26.00	38.00
4	15	5	13 1/8	10 1/4	9	47 3/8	13 1/2	10	5	25 1/4	4	3	135	36.00	52.00
5	15 3/4	5 3/8	14 1/4	12	11 1/2	5	14 1/4	11 1/2	4 5/8	24 1/2	4 1/4	3	180	44.00	64.00
6	18 3/4	6 1/4	15 3/4	13 1/4	13	6	16 3/4	13	5 5/8	27 3/4	4 1/2	3 1/2	265	55.00	80.00
7	21 3/4	7 3/4	16 1/4	14 3/4	13 1/2	7	19 1/4	14	6 1/2	33 3/4	5	4 1/2	308	70.00	105.00
8	26 1/2	8 3/4	19	17	15	8 3/8	21 1/2	16 1/2	9	40	6	4 1/2	445	90.00	135.00
9	32	10	22	20	16	9 1/8	25	19	9 3/8	41	7	5	635	115.00	175.00
10	40	12 1/4	28	25 1/2	17 1/2	10 1/2	30 1/2	25 1/2	10 1/2	45 1/4	8	5 3/4	820	160.00	240.00
11	43 1/2	14 1/2	28	30 1/2	21 1/2	11 1/2	36 1/2	29	12	50 3/4	8 1/2	6 1/2	1400	225.00	315.00
11 1/2	53	16 1/2	33	36	23	12	41 5/8	34	12 3/8	53	10	7	1900	275.00	375.00
12	53	18	33	36	23	12	41 5/8	34	12 3/8	53	10	8	1950	325.00	435.00

Dimensions in inches. Special discharges, 10 per cent additional.

In ordering blowers from this catalog, please specify "Steel Pressure Blower," in full.

THE IOLA PORTLAND CEMENT CO.

Iola, Kansas, March 12, 1909.

BUFFALO FORGE Co., 2126A Allen Ave., St. Louis, Mo.

Gentlemen:—We have your favor of the 8th inst. with reference to steel pressure pulley fans which you furnished us about four years ago to be used for furnishing blast for our rotary kilns.

We are pleased to advise that these fans have been running continuously since they were installed and have given excellent satisfaction.

Yours very truly,

THE IOLA PORTLAND CEMENT Co.,

By G. O. Curtis, Purchasing Agt.



Buffalo Steel Pressure Blowers



Buffalo Up Blast Discharge Steel Pressure Blower



Buffalo Top Horizontal Discharge Steel Pressure Blower

Application to Forge Fires and Cupola Service

No. of Blower	Cap	4-Ounce Pressure	5-Ounce Pressure	6-Ounce Pressure	7-Ounce Pressure	8-Ounce Pressure	9-Ounce Pressure	10-Oz. Pressure	11-Oz. Pressure	12-Oz. Pressure	14-Oz. Pressure	16-Oz. Pressure
2	R. P. M.	4986	5596									
	A. P. M.	289	326									
	H. P.											
3	R. P. M.	3993	4473	4811								
	A. P. M.	542	607	689								
	H. P.			2.45								
4	R. P. M.	3363	3754	4051	4372							
	A. P. M.	573	642	725	783							
	H. P.			2.60	3.21							
5	R. P. M.	2952	3308	3564	3846	4107	4351	4582				
	A. P. M.	651	730	828	892	951	1000	1060				
	H. P.			2.95	3.65	4.39	5.13	6.03				
6	R. P. M.	2573	2883	3104	3349	3577	3790	3990	4180	4362		
	A. P. M.	839	940	935	1002	1073	1129	1195	1250	1490		
	H. P.			3.31	4.36	4.93	5.77	6.77	7.73	9.95		
7	R. P. M.	2275	2549	2749	2966	3168	3357	3534	3703	3864	4165	4443
	A. P. M.	1002	1123	1277	1375	1467	1540	1635	1710	1780	1915	2040
	H. P.			4.28	5.46	6.60	7.75	9.10	10.39	11.77	14.70	17.83
8	R. P. M.	2067	2316	2499	2697	2880	3051	3213	3367	3513	3786	4040
	A. P. M.	1501	1681	1918	2065	2200	2310	2455	2570	2675	2880	3060
	H. P.			6.46	8.06	9.76	11.43	13.46	15.49	17.52	22.00	26.60
9	R. P. M.	1851	2074	2238	2414	2579	2732	2877	3014	3145	3390	3617
	A. P. M.	2136	2393	2720	2930	3121	3280	3480	3640	3796	4080	4340
	H. P.			9.03	11.24	13.66	16.03	18.91	21.68	24.65	30.84	37.02
10	R. P. M.	1384	1550	1673	1806	1928	2043	2151	2254	2352	2535	2705
	A. P. M.	3116	3491	3961	4275	4560	4790	5075	5310	5540	5950	6335
	H. P.			12.91	16.18	19.65	23.07	27.60	31.40	35.63	44.55	54.23
11	R. P. M.	1154	1593	1394	1505	1606	1703	1793	1878	1960	2113	2254
	A. P. M.	3845	4308	4880	5260	5610	5900	6250	6540	6810	7330	7800
	H. P.			15.77	19.80	24.11	28.48	33.45	38.52	43.73	54.81	66.64
12	R. P. M.	937	1050	1132	1221	1304	1382	1455	1525	1590	1715	1830
	A. P. M.	5002	5604	6362	6860	7320	7690	8150	8540	8900	9560	10180
	H. P.			20.43	25.65	31.27	36.88	43.50	50.11	56.93	71.35	86.50

R. P. M. indicates revolutions per minute.

A. P. M. indicates cubic feet air delivered per minute against stated pressure.

H. P. indicates required horsepower necessary to drive blower.



BUFFALO FORGE COMPANY



Buffalo Oil-Ring Bearings



All Buffalo Steel Pressure Blowers are provided with oil-ring bearings, specially constructed for high speed continuous duty. They are made dust proof, and have a large oil reservoir, consequently require no attention beyond an occasional oiling.

Bearings are made of cast iron and lined with best quality babbitt metal. Bearing surface is divided, as shown in illustration, and has an oil ring running over shaft between the two surfaces which carries oil to top of shaft and bearing from oil reservoir. Oil is distributed to all parts of bearing by suitable channels cut in bearing surface.

End play is prevented by an adjustable fiber plate in end of bearing.

Bearing surfaces are extra long, assuring smooth running without heating at the highest speeds.

CLEVELAND, OHIO, April 7, 1909.

THE BUFFALO FORGE COMPANY, Buffalo, N. Y.

Gentlemen:—Please make us price delivered at El Reno, Okla., on one No. 9 Buffalo Pressure Blower, bottom horizontal discharge, motor driven with A. C. current.

We cannot give you the voltage or phase, and if there is any variation make the price of motors so as to cover yourselves.

The writer has been doing a little investigating recently in connection with the air required for melting in cupolas and power required for moving the air, and is very much pleased to find that our figures for horsepowers agree almost exactly, and in this connection wishes to say **that you are** the only one of all the makers who gives anything like reliable information on **the horsepower** required. The information given out by the other manufacturers is very misleading and if the blowers were tested out under the conditions they state they would find that they would be very shy on horsepower, in some cases from 40 to 60%.

We would greatly appreciate a list of prices on positive pressure blowers, direct-connected to A. C. and D. C. motors, so that we will have the same for use promptly.

Yours very truly,

THE J. D. SMITH FOUNDRY SUPPLY CO.,

(Signed)

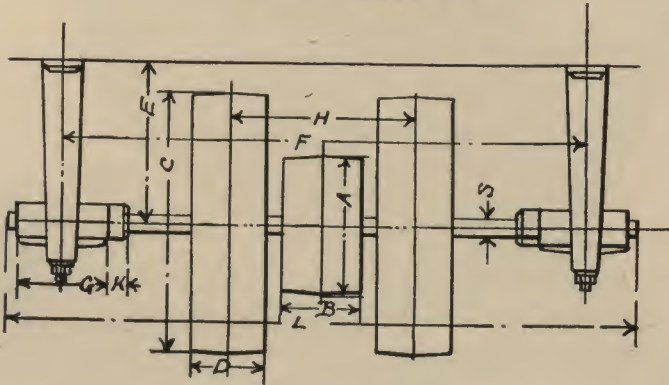
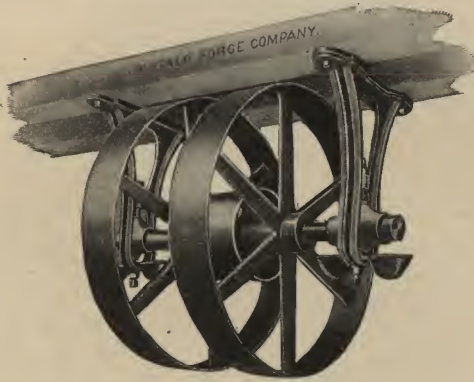
F. A. COLEMAN, Pres.



BUFFALO FORGE COMPANY



Buffalo Steel Pressure Blower Countershafts



Principal Dimensions in Inches, and Prices.

No. of Countershaft Also No. S. P. Blower	S	A	B	C	D	F	*Price	Extra for Tight and Loose Pulleys	Shipping Weight of Countershaft
1	7/8	4	3	12	13 3/4	15 1/2	\$ 8.00	\$ 4.00	45
2	1	5	3 1/2	14	2 1/4	17 1/4	10.00	4.50	60
3	1 1/8	6	4	16	2 5/8	18 7/8	12.00	5.50	85
4	1 1/4	7	4 1/2	18	3	21 1/2	16.00	6.00	100
5	1 3/8	8	4 1/2	21	3	22 1/2	20.00	7.00	135
6	1 5/8	9	5	26	3 1/2	25 1/4	25.00	7.50	190
7	1 3/4	10	5 1/2	30	4 1/2	33 1/4	35.00	8.00	340
8	2	12	6	32	4 1/2	37 1/4	45.00	9.00	400
9	2 1/4	14	6	36	5	41 1/4	60.00	10.00	520
10	2 1/2	16	8	40	5 3/4	44 3/4	80.00	12.00	625
11	2 3/4	17	10	42	6 1/2	51	90.00	16.00	830
11 1/2	3	18	12	44	7	64	100.00	21.00	900
12	3	18	12	44	8	67	110.00	21.00	965

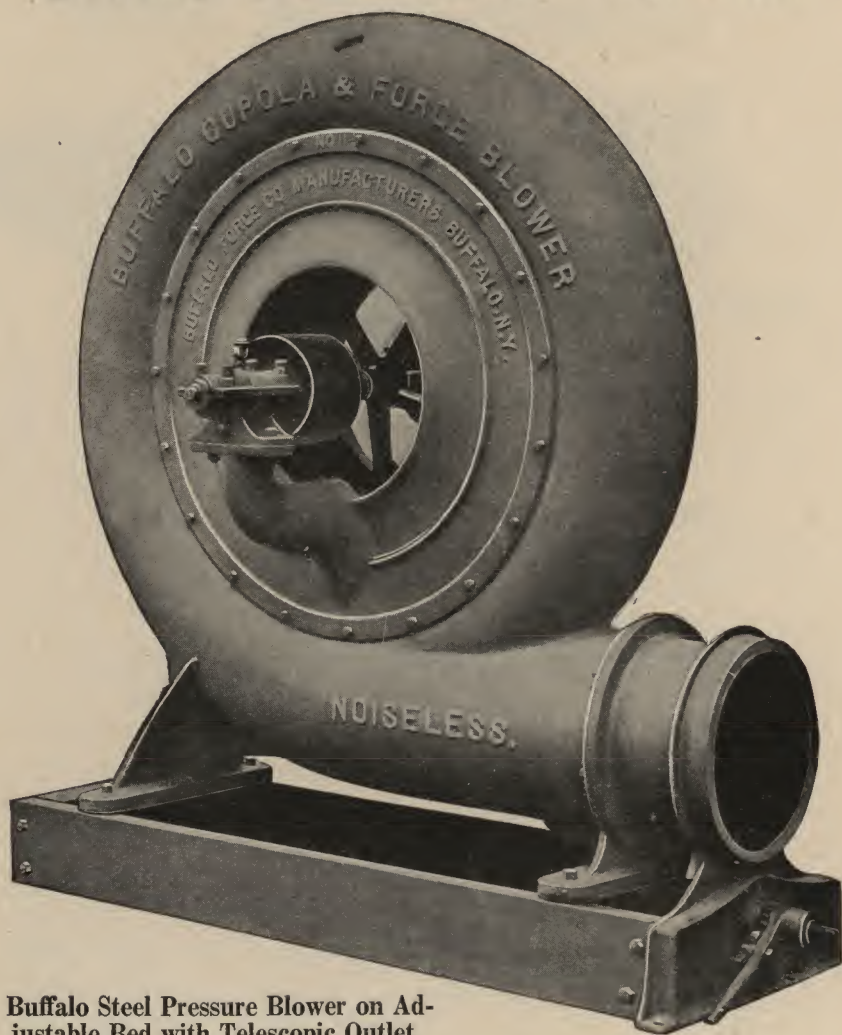
*Countershafts up to and including No. 6 have one driving pulley only.



BUFFALO FORGE COMPANY



Buffalo Steel Pressure Blowers



Buffalo Steel Pressure Blower on Adjustable Bed with Telescopic Outlet.

Such an arrangement as the one shown above will be found of great value in securing the best results at the high speeds for which this apparatus is designed. The blower is so placed upon the bed as to be easily adjustable without disturbing the blast piping, and in this way the belts may be readily tightened when running.

The adjustment of the belts is quickly and easily made by simply loosening the four bolts holding the blower to the bed and then turning the adjusting screw located at the front of the bed. Tighten up the bolts again and the adjustment is complete. The whole operation requires but a few minutes and the blower is kept running all the time.

See Next Page for Dimensions and Prices



BUFFALO FORGE COMPANY



Buffalo Steel Pressure Blowers

ON ADJUSTABLE BEDS



Buffalo Steel Pressure Blower on Adjustable Bed with Telescopic Outlet

Dimensions and Prices without Countershafts

No. of Blower	Outside Diam. of Outlet	Length of Bed	BEARINGS		PULLEYS		Price with Bed as shown above
			Diam.	Length	Diam.	Face	
6	7 $\frac{3}{8}$	31	1 $\frac{1}{4}$	7	4 $\frac{1}{2}$	3 $\frac{1}{2}$	\$ 90.00
7	8 $\frac{3}{8}$	34	1 $\frac{3}{8}$	7 $\frac{3}{4}$	5	4 $\frac{1}{2}$	100.00
8	10 $\frac{1}{4}$	39	1 $\frac{1}{2}$	8 $\frac{1}{4}$	6	4 $\frac{1}{2}$	130.00
9	11 $\frac{3}{8}$	46	1 $\frac{5}{8}$	9	7	5	170.00
10	13 $\frac{7}{8}$	54	1 $\frac{3}{4}$	9 $\frac{1}{2}$	8	5 $\frac{3}{4}$	265.00
11	16 $\frac{1}{4}$	64	1 $\frac{7}{8}$	11	8 $\frac{1}{2}$	6 $\frac{1}{2}$	330.00
11 $\frac{1}{2}$	18 $\frac{3}{8}$	75	2	11	10	7	380.00
12	19 $\frac{7}{8}$	75	2	11	10	8	475.00

Dimensions in inches. Special discharges 10 per cent additional.

For prices of countershafts see page 238.



BUFFALO FORGE COMPANY



Buffalo Steel Pressure Blowers

On Adjustable Bed with Countershaft.

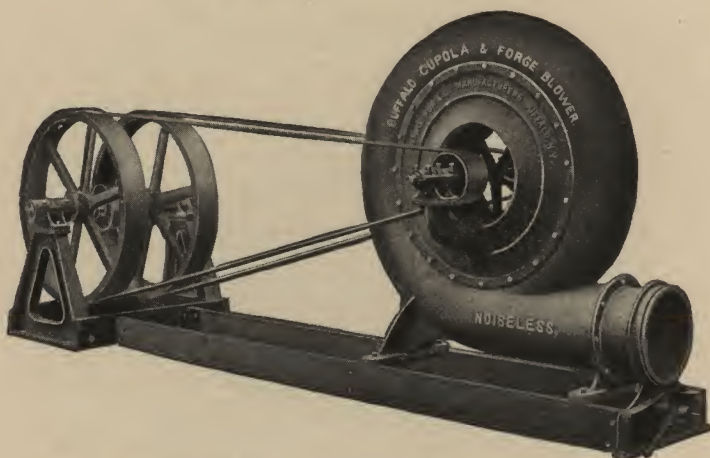


Table of Blowers on Adjustable Bed with Countershafts.

No. of Blower	Outside Diameter of Outlet	Length of Bed	BEARINGS		Weights as Shown Above
			Diameter	Length	
6	7 $\frac{3}{8}$	31	1 $\frac{1}{4}$	7	750
7	8 $\frac{3}{8}$	34	1 $\frac{3}{8}$	7 $\frac{3}{4}$	900
8	10 $\frac{1}{8}$	39	1 $\frac{1}{2}$	8 $\frac{1}{4}$	1150
9	11 $\frac{3}{8}$	46	1 $\frac{5}{8}$	9	1575
10	13 $\frac{1}{8}$	54	1 $\frac{3}{4}$	9 $\frac{1}{2}$	2000
11	16 $\frac{1}{4}$	64	1 $\frac{7}{8}$	11	2900
11 $\frac{1}{2}$	18 $\frac{3}{8}$	75	2	11	3600
12	19 $\frac{1}{8}$	75	2	11	3900

No. of Blower	PULLEYS		Price as Shown Above	* Extra for Tight and Loose Pulleys	Extra Weight for Tight and Loose Pulleys
	Diameter	Face			
6	4 $\frac{1}{2}$	3 $\frac{1}{2}$	\$120.00	\$ 25.00	100
7	5	4 $\frac{1}{2}$	135.00	35.00	125
8	6	4 $\frac{1}{2}$	175.00	45.00	150
9	7	5	230.00	50.00	200
10	8	5 $\frac{3}{4}$	350.00	60.00	225
11	8 $\frac{1}{2}$	6 $\frac{1}{2}$	435.00	75.00	350
11 $\frac{1}{2}$	10	7	500.00	90.00	400
12	10	8	625.00	100.00	425

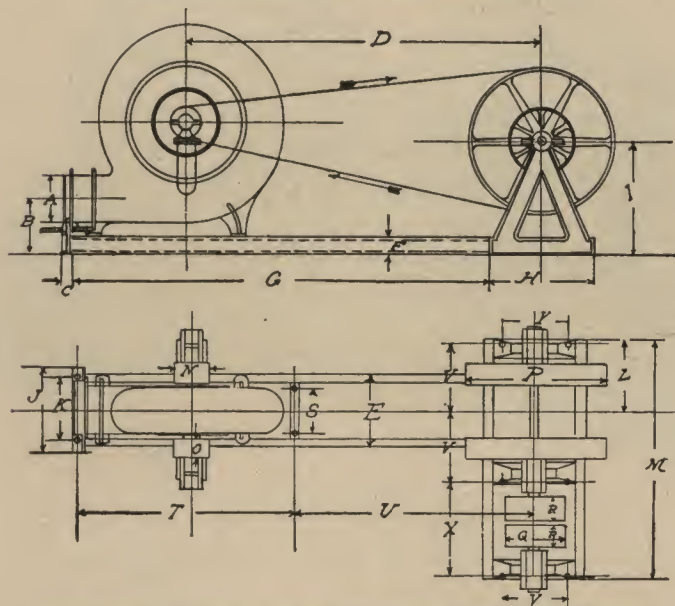
Dimensions in inches. Special discharges 10 per cent additional.

*This arrangement shown on next page.



Buffalo Steel Pressure Blowers

On Adjustable Bed with Countershaft.



Cut Shows Countershaft with Tight and Loose Pulleys.

No.	A	B	C	D	E	F	G	H	I
6	7 $\frac{3}{8}$	10	2 $\frac{1}{4}$	66	15	4	74	22 $\frac{1}{4}$	23 $\frac{3}{4}$
7	8 $\frac{3}{8}$	11	2 $\frac{1}{4}$	66	15 $\frac{1}{2}$	4	74	22 $\frac{1}{4}$	23 $\frac{3}{4}$
8	10 $\frac{1}{8}$	12 $\frac{1}{4}$	2 $\frac{1}{4}$	70	17 $\frac{1}{4}$	4	81	22 $\frac{1}{4}$	23 $\frac{3}{4}$
9	11 $\frac{3}{8}$	14 $\frac{1}{4}$	2 $\frac{1}{4}$	87	18 $\frac{3}{4}$	5	96	30 $\frac{1}{4}$	30
10	13 $\frac{7}{8}$	16 $\frac{3}{4}$	2 $\frac{1}{2}$	94	20	5	108	30 $\frac{1}{4}$	30
11	16 $\frac{1}{4}$	18 $\frac{5}{8}$	2 $\frac{1}{2}$	106	24 $\frac{1}{4}$	8	120	37	36 $\frac{3}{4}$
11 $\frac{1}{2}$	18 $\frac{3}{8}$	20 $\frac{3}{4}$	2 $\frac{1}{2}$	114	26 $\frac{3}{4}$	8	132	37	36 $\frac{3}{4}$
12	19 $\frac{7}{8}$	20 $\frac{3}{4}$	2 $\frac{1}{2}$	114	26 $\frac{3}{4}$	8	132	37	36 $\frac{3}{4}$

No.	L	M	N	O	P	Q	R	T	U	Y
6	14	50 $\frac{1}{2}$	4 $\frac{1}{2}$	3 $\frac{1}{2}$	26	9	5	35	50 $\frac{1}{2}$	15
7	14 $\frac{7}{8}$	54 $\frac{1}{4}$	5	4 $\frac{1}{2}$	30	10	6	36	51 $\frac{1}{2}$	15
8	17 $\frac{3}{4}$	60 $\frac{1}{4}$	6	4 $\frac{1}{2}$	32	12	6	42	51 $\frac{1}{2}$	15
9	19	68	7	5	36	14	8	48	64 $\frac{1}{2}$	19 $\frac{3}{4}$
10	20	70	8	5 $\frac{3}{4}$	40	14	8	54	70 $\frac{3}{4}$	19 $\frac{3}{4}$
11	22 $\frac{3}{4}$	83	8 $\frac{1}{2}$	6 $\frac{1}{2}$	42	16	11	60	80	27
11 $\frac{1}{2}$	23 $\frac{1}{2}$	90	10	7	44	18	14	68	84	27
12	23 $\frac{1}{8}$	90	10	8	44	18	14	68	84	27

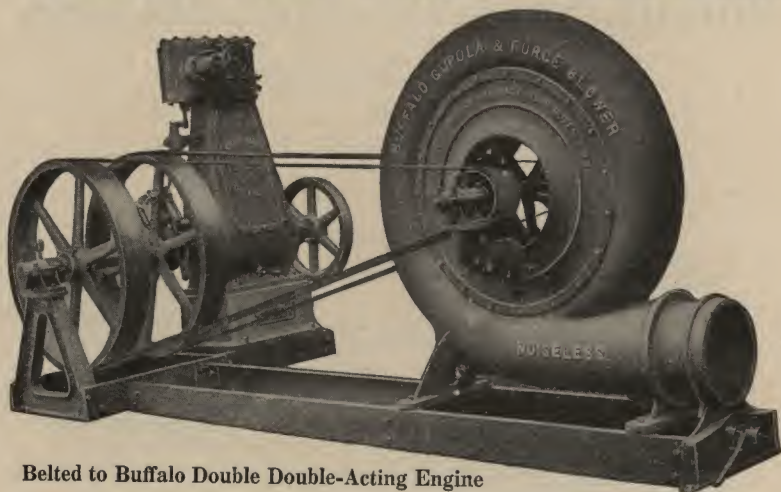
Dimensions in inches. Prices on preceding page.



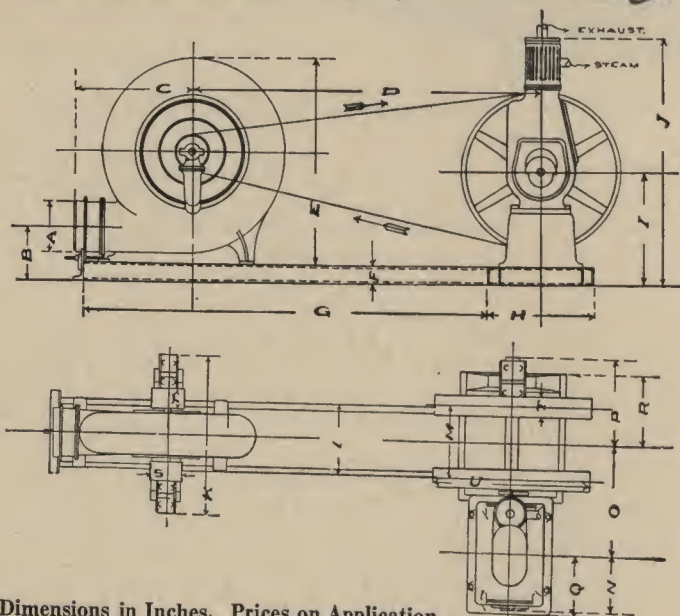
BUFFALO FORGE COMPANY



Buffalo Steel Pressure Blowers



Belted to Buffalo Double Double-Acting Engine

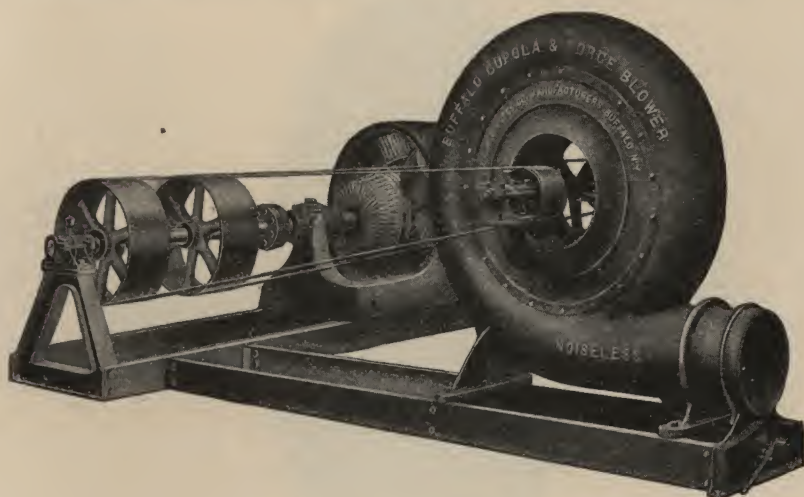


Dimensions in Inches. Prices on Application.

No.	Engine	A	B	C	D	E	F	G	H	I	J	K	L	M	O	P	Q	S	T	U
6	3½ x 3½	7	10	19¾	66	29¾	4	74	22½	23¾	51	27¾	15	11½	22	16	11¾ ¹⁵ / ₁₆	4½	3½	32
7	3½ x 3½	8	11	21¼	66	33¼	4	74	22½	23¾	51	33¾	15½	13	22¾	16¾	11¾ ¹⁵ / ₁₆	5	4½	32
8	4 x 3½	10	12½	25¼	70	38	4	81	22½	23¾	51	40	17½	18	25¾	19¾	11¾ ¹⁵ / ₁₆	6	4½	32
9	5 x 5	11	14½	28	87	44	5	96	30½	30	68½	41	18½	18	29¾	21½	16¾	7	5	36
10	6 x 5	13	16½	32½	94	56	5	108	30½	30	68½	45½	20	21	30¾	22½	16¾	8	5½	40
11	6 x 6	16½	18¾	34½	106	65½	8	120	37	36¾	69½	50½	24½	24½	32½ ¹⁵ / ₁₆	26	16¾	8½	6½	40
11½	8 x 7	18	20¾	40	114	75½	8	132	37	36¾	94	53	26½	24½	39½	26¾	18½	10	7	48
12	8 x 8	19	20¾	40	114	75½	8	132	37	36¾	94	53	26½	24½	39½	26¾	18½	10	8	48



Buffalo Steel Pressure Blower



Belted to Electric Motor.

Blower, Motor and Countershaft mounted upon adjustable bed, constructed of heavy channel iron, securely bolted together and well braced.

Countershaft is direct-connected to motor and runs in adjustable bearings.

Buffalo Steel Pressure Blowers are furnished with adjustable beds in combination with countershafts, steam engines or electric motors. Any one of these combinations is efficient in obtaining the best results at the high speeds for which the apparatus is designed.

THE FREDONIA PORTLAND CEMENT CO.

FREDONIA, KANSAS, March 12, 1909.

BUFFALO FORGE CO., St. Louis, Mo.

Gentlemen:—We are in receipt of your inquiry of the 8th inst., making inquiry in regard to the service which your special pressure blowers have given us, and in reply will say they have proved entirely satisfactory and are giving good service, all that we could expect from them.

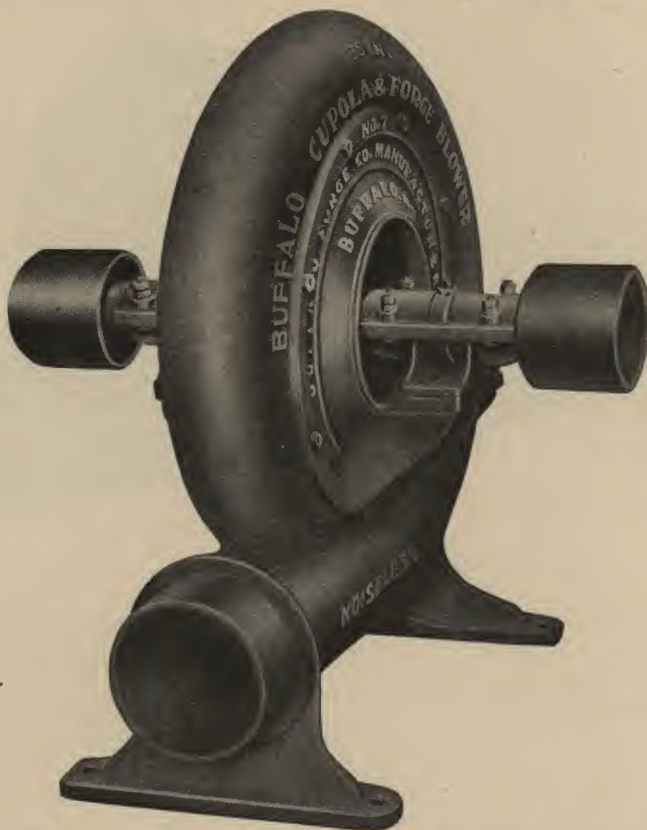
Yours truly,

THE FREDONIA PORTLAND CEMENT CO.,

By F. H. Batterson, Pres.



Buffalo Steel Pressure Export Blowers



Buffalo Steel Pressure Blower with Overhung Pulleys

The bearings of the Buffalo Steel Pressure Blowers with overhung pulleys are supported upon a shelf or bracket located at the inlet and forming an integral part of the side plate. This method of supporting the bearings insures both rigidity and alignment.

In packing blowers of this construction for shipment, the bearings, shaft and pulleys are removed and placed inside the casing, eliminating projecting parts. The compact package thus obtained not only insures safe delivery, but is also particularly advantageous in foreign or export shipments, as it greatly reduces the transportation charges, which are based upon the cubic space occupied.

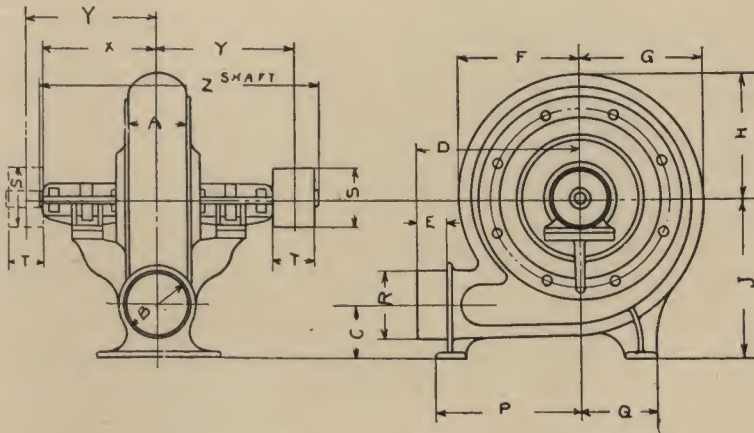
Aside from the location of the pulleys and bearings, these blowers are of exactly the same substantial construction as the Standard Steel Pressure Blowers described in the preceding pages. That attention to detail which characterizes "Buffalo Quality" is maintained throughout.



BUFFALO FORGE COMPANY



Buffalo Steel Pressure Export Blowers



Dimensions in Inches

No.	A	B	C	D	E	F	G	H	J	P	Q	S	T	X	Y	Z
1	3 $\frac{1}{4}$	3 $\frac{1}{2}$	2 $\frac{7}{8}$	6 $\frac{15}{16}$	1 $\frac{3}{4}$	5 $\frac{1}{16}$	5 $\frac{1}{4}$	5 $\frac{1}{8}$	6 $\frac{7}{8}$	5 $\frac{7}{8}$	2 $\frac{7}{8}$	2 $\frac{3}{8}$	1 $\frac{7}{8}$	5 $\frac{13}{16}$	6 $\frac{3}{4}$	14
2	3 $\frac{1}{4}$	4	3 $\frac{5}{16}$	8 $\frac{5}{8}$	1 $\frac{3}{4}$	6	6 $\frac{3}{8}$	6 $\frac{3}{16}$	9 $\frac{5}{16}$	7 $\frac{1}{16}$	4 $\frac{5}{16}$	2 $\frac{7}{8}$	2 $\frac{3}{8}$	4 $\frac{3}{4}$	6 $\frac{1}{4}$	12 $\frac{3}{8}$
3	4	4 $\frac{5}{8}$	3 $\frac{9}{16}$	11 $\frac{1}{16}$	2	8 $\frac{1}{4}$	8 $\frac{3}{8}$	8 $\frac{3}{16}$	10 $\frac{3}{4}$	9 $\frac{15}{16}$	5 $\frac{1}{16}$	3 $\frac{1}{4}$	2 $\frac{1}{2}$	5 $\frac{13}{16}$	7 $\frac{1}{4}$	14 $\frac{1}{4}$
4	3 $\frac{7}{8}$	5	4 $\frac{5}{8}$	13 $\frac{1}{16}$	2 $\frac{1}{2}$	9 $\frac{9}{16}$	10 $\frac{3}{8}$	9 $\frac{15}{16}$	13 $\frac{1}{2}$	11 $\frac{1}{2}$	5 $\frac{1}{16}$	3 $\frac{3}{4}$	3 $\frac{1}{4}$	6 $\frac{3}{16}$	7 $\frac{3}{8}$	15 $\frac{3}{4}$
5	4 $\frac{7}{8}$	5 $\frac{3}{8}$	4 $\frac{9}{16}$	14 $\frac{1}{4}$	2 $\frac{3}{4}$	10 $\frac{15}{16}$	11 $\frac{9}{16}$	11 $\frac{1}{2}$	14 $\frac{1}{4}$	12 $\frac{1}{2}$	5 $\frac{5}{8}$	4	3 $\frac{1}{4}$	8 $\frac{3}{16}$	9 $\frac{7}{8}$	19 $\frac{1}{4}$
6	5 $\frac{3}{8}$	6 $\frac{1}{8}$	6	15 $\frac{5}{8}$	2 $\frac{3}{4}$	11 $\frac{3}{4}$	13 $\frac{1}{4}$	12 $\frac{5}{8}$	16 $\frac{5}{8}$	14	7 $\frac{5}{8}$	4 $\frac{1}{2}$	3 $\frac{3}{4}$	8 $\frac{9}{16}$	9 $\frac{3}{4}$	21 $\frac{1}{4}$
7	5 $\frac{3}{4}$	7 $\frac{1}{4}$	6 $\frac{7}{8}$	16 $\frac{1}{4}$	3	13 $\frac{1}{2}$	15 $\frac{1}{8}$	13 $\frac{7}{8}$	19 $\frac{1}{8}$	14 $\frac{3}{8}$	10 $\frac{5}{8}$	5	4 $\frac{5}{8}$	9 $\frac{7}{8}$	10 $\frac{1}{16}$	26 $\frac{3}{8}$
8	7 $\frac{1}{4}$	8 $\frac{9}{16}$	8 $\frac{1}{4}$	19 $\frac{1}{8}$	3 $\frac{1}{8}$	15 $\frac{1}{8}$	17 $\frac{3}{8}$	16 $\frac{3}{8}$	21 $\frac{7}{8}$	17 $\frac{1}{8}$	12 $\frac{1}{2}$	6 $\frac{1}{4}$	4 $\frac{3}{4}$	11 $\frac{5}{8}$	12 $\frac{1}{8}$	30 $\frac{1}{2}$
9	9 $\frac{1}{4}$	10	9	22 $\frac{1}{4}$	3 $\frac{1}{4}$	17 $\frac{1}{2}$	20	18 $\frac{7}{8}$	24 $\frac{3}{4}$	19 $\frac{3}{4}$	15 $\frac{5}{8}$	7 $\frac{1}{4}$	5 $\frac{1}{4}$	11 $\frac{9}{16}$	12 $\frac{5}{16}$	30 $\frac{1}{8}$
10	10 $\frac{3}{4}$	12 $\frac{1}{8}$	10 $\frac{3}{16}$	27 $\frac{5}{8}$	5 $\frac{3}{8}$	22 $\frac{1}{2}$	25 $\frac{5}{8}$	25 $\frac{1}{2}$	30 $\frac{1}{2}$	23 $\frac{1}{2}$	20 $\frac{1}{8}$	8	5 $\frac{3}{4}$	12 $\frac{3}{8}$	13 $\frac{1}{16}$	31 $\frac{5}{8}$
11	11 $\frac{3}{4}$	14 $\frac{3}{8}$	11	27 $\frac{1}{2}$	3 $\frac{3}{8}$	27 $\frac{1}{4}$	30 $\frac{7}{8}$	29 $\frac{1}{8}$	36	25 $\frac{1}{2}$	22 $\frac{1}{8}$	8 $\frac{1}{2}$	6 $\frac{1}{2}$	14 $\frac{1}{4}$	15 $\frac{3}{8}$	38 $\frac{1}{4}$
11 $\frac{1}{2}$	13 $\frac{1}{4}$	16 $\frac{1}{2}$	12 $\frac{1}{4}$	33 $\frac{7}{8}$	4 $\frac{1}{2}$	32 $\frac{1}{8}$	35 $\frac{7}{8}$	34	41 $\frac{1}{4}$	29 $\frac{3}{4}$	28	9 $\frac{5}{8}$	7	14 $\frac{1}{2}$	16 $\frac{1}{4}$	40
12	13 $\frac{1}{4}$	18	12 $\frac{1}{4}$	33	3 $\frac{1}{2}$	32 $\frac{1}{8}$	35 $\frac{7}{8}$	34	41 $\frac{1}{4}$	29 $\frac{3}{4}$	28	10	9 $\frac{1}{8}$	14 $\frac{1}{2}$	16 $\frac{1}{4}$	40

Outside Dimensions of Packing Cases for Buffalo Steel Pressure Export Blowers

No.		1	2	3	4	5	6	7	8	9	10	11	11½ & 12
PACKING CASES	Height	14¼	17	21¼	25½	27¾	31	33¾	39	44½	55¾	61	71½
	Width	13½	12	13	14½	19½	20¼	21¼	25½	26½	27¾	31	32
	In.	14	17	21	25½	27¾	31¼	35¼	40½	46	58½	67½	78
Weight (Gross) Lbs.		38	55	95	140	185	245	325	500	685	1055	1580	2320



BUFFALO FORGE COMPANY



Buffalo Steel Plate Pressure Blowers

Constructed throughout to resist the strains of high pressure duty. The housing is built of heavy gauge steel plate, securely riveted and bolted together, also stiffened at every point of strain by a strong angle iron frame.

The blast wheel is built of heavy steel plate mounted upon a heavy malleable iron spider or hub. The blades or vanes are securely riveted to heavy steel plate flanges, and the principal blades are also riveted securely to the arms of the spider. This construction assures a strong, rigid wheel.

Every blast wheel is carefully tested for strength, balance and smooth running. A true wheel running without vibration at the highest speeds, is thus secured.

This fan economically delivers air at pressures up to 16 ounces. It is usually direct-connected to an electric motor, but is also built for direct connection to a steam engine, or for pulley drive.

The motor and blower are mounted upon the same base, which is built of heavy steel plate, reinforced with heavy angle iron, a strong, rigid construction.

The motor is connected to the shaft of the blast wheel by a flexible coupling of special design, which acts also as an insulator between the motor and blower.

The bearings are ring-oiling with extra long journals, and large oil reservoirs. Beyond occasional oiling these bearings require little attention. One is located at each end of the blast wheel shaft and is supported by a heavy bracket securely fastened to the blower casing. True alignment is thus maintained.

When ordering, state nature of current on which motor will operate, as well as the voltage. If alternating current, give also the phase and cycles or alternations per minute.

See Next Page for Prices and Sizes.

927 Monadnock Building, Chicago, Ill.

March 17, 1909.

BUFFALO FORGE COMPANY, Chicago, Ill.

Gentlemen:—We take pleasure in advising you that the high pressure fans which you have furnished us for use in connection with several of our vacuum ash handling systems throughout the country are and have been operating very satisfactorily and that we have experienced no difficulty whatever in maintaining the high vacuum necessary for our system.

The H. P. required to drive these fans under these conditions has by the design of fan used been reduced to a minimum and we can highly recommend them as being of superior design and efficiency.

Yours very truly,

THE ECONOMIC ENGINEERING & CONSTRUCTION CO.,

Per

(Signed) W. A. SHARP, Pres.

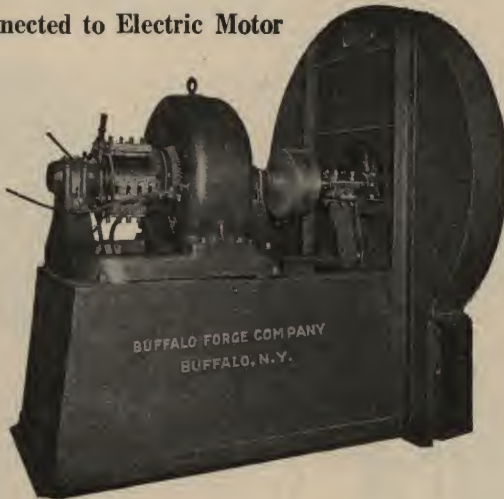


BUFFALO FORGE COMPANY



Buffalo Steel-Plate Pressure Blower

Direct-Connected to Electric Motor



Number of Blower		Pressure Per Sq. Inch				Diam of Inlets	Area Outlet Sq. in.	List Price of Blower with- out Sub-base
		10-oz.	12-oz.	14-oz.	16-oz.			
5	R. P. M.	1700	1700	1700		10.3 in.	47	\$320.00
	Cu. Ft. Air	2700	2700	2700				
	Horse Power	14.6	17.5	20.0				
	Diam.of Wheel	36.5 in.	40. in.	43.2 in.				
6	R. P. M.	1700	1700	1700		11.4 in.	63	360.00
	Cu. Ft. Air	3600	3600	3600				
	Horse Power	19.5	23.4	27.3				
	Diam.of Wheel	36.5 in.	40 in.	43.2 in.				
7	R. P. M.	1700	1700	1700		12.6 in.	84	400.00
	Cu. Ft. Air	4800	4800	4800				
	Horse Power	26	31	36.2				
	Diam.of Wheel	36.5 in.	40 in.	43.2 in.				
8	R. P. M.	1700	1700	1700		13.75 in.	112	440.00
	Cu. Ft. Air	6400	6400	6400				
	Horse Power	34.6	41.5	48.4				
	Diam.of Wheel	36.6 in.	40 in.	43.2 in.				
9	R. P. M.		1120	1120	1120	17. in.	126	500.00
	Cu. Ft. Air		8000	8000	8000			
	Horse Power		52.	60.5	69.2			
	Diam.of Wheel		61 in.	65.7 in.	70 in.			
10	R. P. M.		1120	1120	1120	18.3 in.	158	600.00
	Cu. Ft. Air		10000	10000	10000			
	Horse Power		65	76	87			
	Diam.of Wheel		61 in.	65.7 in.	70 in.			
11	R. P. M.		860	860	860	21.5 in.	190	850.00
	Cu. Ft. Air		12000	12000	12000			
	Horse Power		78	91	104			
	Diam.of Wheel		71 in.	77 in.	82.7 in.			
12	R. P. M.		860	860	860	22.5 in.	240	1150.00
	Cu. Ft. Air		15000	15000	15000			
	Horse Power		97	113	129			
	Diam.of Wheel		71 in.	77 in.	82.7 in.			

Furnished with electric motors for direct or alternating current.
Prices on receipt of particulars. Give characteristics of electric current.



Buffalo Steel Pressure Blowers

DESIGNS FOR SPECIAL DUTIES

Buffalo Experimental Blower and Exhauster

The Buffalo Experimental Blowers and Exhausters are made upon the same principle as Buffalo Pressure Blowers. They operate noiselessly and yield as large a volume of air, in proportion to the sizes, as the other types, but will not produce the same amount of pressure. They are intended especially for blowing fires

in portable and small stationary boilers, for experimenting and various purposes where a small quantity of air, at an average pressure, is desired. The No. 0 is sufficient to blow one forge fire; No. $\frac{1}{2}$ is sufficient for three forge fires of average size.



No. 00

Experimental Blower

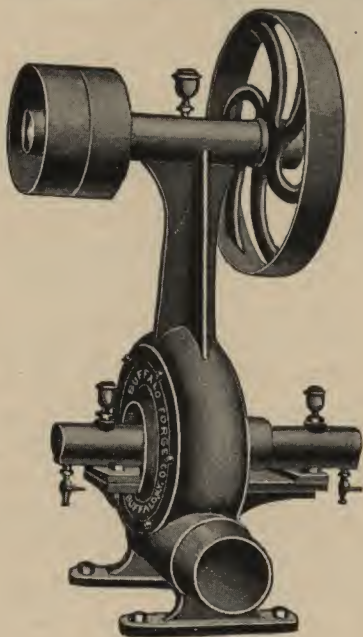
where a small quantity of air, at an average pressure, is desired. The No. 0 is sufficient to blow one forge fire; No. $\frac{1}{2}$ is sufficient for three forge fires of average size.

Buffalo Laundry Blower

Cut on left shows a small special pressure blower having the counter-shaft standard cast in one piece with the shell of the blower. These are built in two sizes, though others may



No. 00 Experimental Exhauster
be constructed to order if so desired.



No. 1

Price, \$20.00

13 $\frac{1}{4}$ in. Between Centers of Shafts.
27 in. high over all.

No. 2, Price, \$28.00

14 $\frac{1}{2}$ in. Between Centers of Shafts.
30 $\frac{1}{2}$ in. high over all.

Sizes, dimensions and capacities are the same as Buffalo Steel Pressure Blowers of the same numbers. See page 235

Buffalo Experimental Blowers and Exhausters

No.	Outside Diam. Outlet	Height	Weight	Pulleys		Price
				Diam.	Face	
00	2 $\frac{3}{4}$	11 in.	20 lbs.	1 $\frac{1}{4}$	1 $\frac{1}{4}$	\$ 8.00
0	3	15 in.	30 lbs.	1 $\frac{3}{4}$	1 $\frac{3}{4}$	10.00
$\frac{1}{2}$	4 $\frac{1}{2}$	20 in.	45 lbs.	1 $\frac{3}{4}$	2	14.00



Buffalo Improved Blast Gates

The Buffalo Improved Blast Gates are especially designed for opening, closing and regulating the blast in air-conveying pipes for various duties. It is an essential for maximum efficiency that blast pipes be of adequate size, and as short and direct as possible under the existing conditions.



The frames of these gates are of heavy cast iron. The slides are of heavy-gauge steel plate. Customers are offered the choice of two forms, i. e., the slide and lever types, the former being sent in the absence of specified instructions.

The size indicates outside diameter of collar of gate where the pipe slides on.

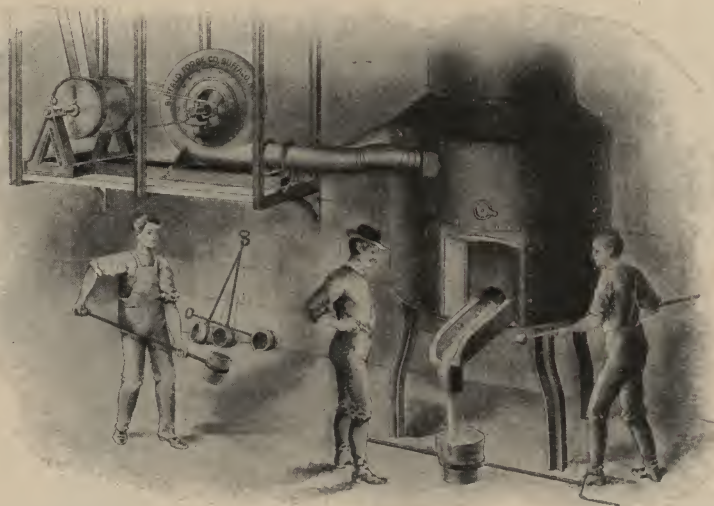
Table of Dimensions and Prices, Slide-Pattern Blast Gates

Size	Inside Diameter	Axial Length	Price	Weight in Pounds
2	1 $\frac{3}{4}$	3	\$ 1.00	1 $\frac{1}{2}$
2 $\frac{1}{2}$	2 $\frac{1}{4}$	3 $\frac{1}{2}$	1.25	2
3	2 $\frac{3}{4}$	4	1.50	2 $\frac{1}{2}$
4	3 $\frac{1}{8}$	5 $\frac{1}{4}$	2.00	6
5	4 $\frac{1}{4}$	5 $\frac{3}{4}$	2.25	7
6	5 $\frac{3}{4}$	7	2.50	11
8	7 $\frac{1}{8}$	8 $\frac{1}{4}$	3.50	25
10	9 $\frac{3}{8}$	9	5.00	31
12	11 $\frac{1}{2}$	9	6.50	36
14	13 $\frac{1}{2}$	8 $\frac{1}{4}$	8.00	45
16	15 $\frac{1}{4}$	9 $\frac{3}{4}$	12.00	75
18	17 $\frac{1}{2}$	9 $\frac{1}{4}$	16.00	80
20	19 $\frac{1}{4}$	8 $\frac{1}{4}$	18.00	95
24	23 $\frac{1}{2}$	9 $\frac{3}{4}$	21.00	120



Buffalo Steel Pressure Blower

Arrangement for Cupola Service.



A proper air supply to the cupola is the chief consideration leading to economical, rapid and continuous melting, and also to the fine quality of iron obtained. It further results in the most economical fuel ratio.

The steady trend of foundry cupola practice has been to decrease the blast pressure and increase the Tuyere area, so as to supply the necessary air volume at as low pressure as is practicable. This has been found to give the best results with the least power consumption. Owing to the decreased density of air in warm weather it becomes necessary to supply a greater volume of air than is required in cold weather to melt the same quantity of iron. At such times the flexibility of an independent engine or motor for driving the blower will be appreciated.

In order to reduce frictional losses, all blast piping should be of ample diameter, free from sharp bends, and as short as possible. Drawings showing the proper size and arrangement of blast pipes will be gladly prepared on application. Blast gates should be included in every installation.

These blowers may be built as up blast, down blast, top horizontal or bottom horizontal discharge fans. The hand of a fan or blower is determined by the side on which the pulley is situated. Standing facing the discharge outlet, a fan is right or left hand according to whether the pulley is on the right or left-hand side.



Buffalo Steel Pressure Blowers

Table of Speeds, Capacities and H. P. for Cupola Service

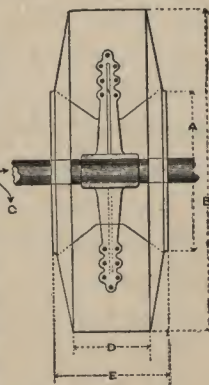
Diam. of Cupola	Static Pressure at Cupola in oz. per sq. inch.					
	10 oz.	12 oz.	14 oz.	16 oz.	18 oz.	
30 in.	5690	6230	6730	7200	7640	CAP.
	1423	1558	1688	1800	1910	A. P. M.
	7.4	9.7	12.3	15.0	17.9	H. P.
	7740	8480	9170	9800	10390	CAP.
35 in.	1935	2120	2293	2450	2773	A. P. M.
	10.0	13.2	16.7	20.4	25.9	H. P.
	10120	11080	11970	12800	13570	CAP.
	2530	2770	2993	3200	3393	A. P. M.
40 in.	13.2	17.3	21.8	26.6	31.8	H. P.
	12810	14030	15150	16200	17180	CAP.
	3203	3508	3788	4050	4295	A. P. M.
	16.7	21.9	27.6	33.7	40.2	H. P.
45 in.	15810	17320	18700	20000	21210	CAP.
	3953	4330	4675	5000	5303	A. P. M.
	20.6	27.0	34.0	41.6	49.6	H. P.
	19130	20960	22640	24200	25660	CAP.
55 in.	4783	5240	5660	6050	6415	A. P. M.
	24.9	32.7	41.2	50.3	60.0	H. P.
	22770	24940	26940	28800	30540	CAP.
	5693	6235	6735	7200	7635	A. P. M.
60 in.	29.6	38.9	49.0	59.9	71.5	H. P.
	26730	29270	31620	33800	35840	CAP.
	6683	7318	7905	8450	8960	A. P. M.
	34.8	45.7	57.5	70.3	83.9	H. P.
65 in.	30990	33950	36670	39200	41570	CAP.
	7748	8488	9168	9800	10393	A. P. M.
	40.3	52.9	66.7	81.5	97.3	H. P.

CAP. is lbs. of metal melted per hour. A. P. M. is cu. ft. of air required per minute. H. P. is power required to deliver air at pressure given.

Suggestions to Correspondents

The smaller sizes of these blowers, Nos. 1 to 6, inclusive, are built with but one pulley. Unless otherwise specified Right-Hand Bottom Horizontal Fans are always furnished. Therefore, for special fans, the hand and discharge should be clearly mentioned.

In ordering new blast wheels much delay and annoyance will be avoided by attention to the following suggestions: Always state the kind and number of the blower, together with the service for which the fan is employed. Refer to the shop number which is always stamped on the bearing or end of the shaft. Finally, give the principal dimensions of the wheel, which are indicated by the letters in the cut. It will be readily understood that as these machines are improved in design the dimensions necessarily vary, hence it is essential that they should be exact.



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BUFFALO FORGE COMPANY



Buffalo Reversible Steel Plate Planing Mill Exhauster

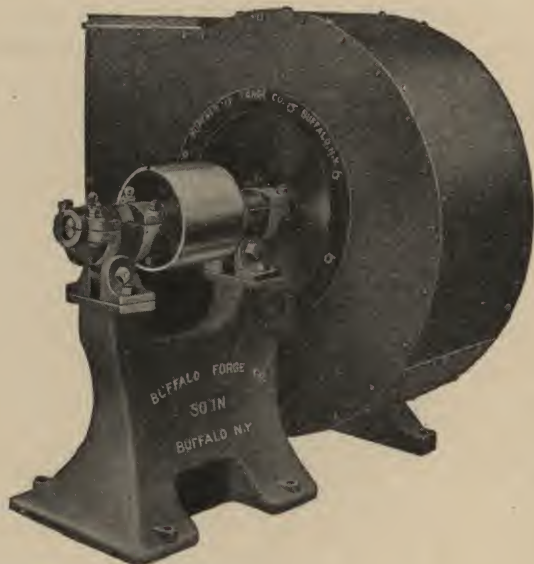


Bearing Pedestal and Standard Blast Wheel

By loosening the bolts securing the housing to the pedestals it can be revolved to discharge in any desired direction. Should you wish to change the hand, it is only necessary to remove these bolts and loosen the set screws holding the fan to the shaft and shift the pedestals. This operation requires but a few moments. This equipment meets every re-

quirement of place:—
No matter what changes you make, this exhauster will meet them.

It is built in both standard and slow speed types. The slow speed exhauster will do the work of a standard exhauster of the same size at a reduction of 20 per cent in speed, saving at least 10 per cent in power.



Write for Catalog 178 N



Buffalo "B" Volume Blowers and Exhausters

Buffalo "B" Volume Blowers and Exhausters are used for many purposes, including forced draft apparatus, forge blowers and exhausters in connection with the Buffalo Down Draft Forges, emery and buffing wheel exhaust systems, ventilating mines, laboratories, kitchens, etc., and handling gases and acid fumes in chemical works.



Buffalo "B" Volume Exhauster

The construction of these blowers permits of constant service under all conditions. They are built with a solid peripheral shell or casing to which heavy side plates of cast iron are closely fitted and securely bolted, preventing any possibility of leakage.



Buffalo "B" Volume Blower

The bearings are extra long, of the ring-oiling type, especially suited for high speed continuous service. They are rigidly supported upon cast-iron arms, babbitted in position and securely bolted to the sides, insuring maintenance of proper alignment.

Every part of these blowers and exhausters is readily accessible at any time without dismantling the machine.

Ask for Special Catalog 178 L

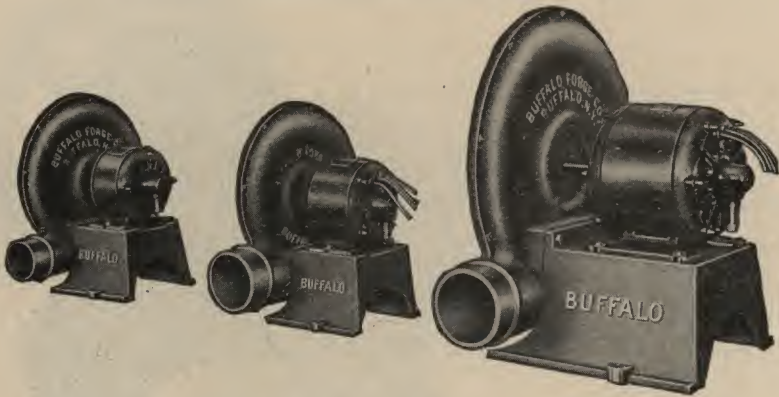


BUFFALO FORGE COMPANY



Buffalo Electric Forge Blowers

PERFECTLY SIMPLE—SIMPLY PERFECT



“Buffalo” Improved Electric Blowers Nos. 2E, 3E and 4E

The following table gives sizes, capacities and prices of the “Buffalo” Improved Electric Blowers.

When ordering, be careful to state nature and details of electric current on which motor will operate.

If direct current, also give voltage.

If alternating current, give voltage, phase and cycles or alternations.

Number of Blower	Number of Fires Blower will furnish Blast for	Diameter of Outlet in Inches	Total Height in Inches	Revolutions per minute	Voltage Direct Current Motor	Voltage Alternating Current Motor	Cycles A. C. Motor	Approximate Weight Blower and Motor	Price with Direct Current Motor	Price with Alternating Current Motor
2E	1	3"	15"	1800	110 220			50	\$36.00	
2E	1	3"	15"	1700		110	60	50		\$36.00
2EH	1—2	3"	15"	3000	110 220			55	\$50.00	
2EH	1—2	3"	15"	3400		110 220	60	55		\$56.00
3E	2—3	4"	15"	3000	110 220			60	\$64.00	
3E	2—3	4"	15"	3400		110 220	60	60		\$72.00
4E	3—5	5"	20"	3200	110 220			110	\$96.00	
4E	3—5	5"	20"	3400		110 220	60	110		\$110.00

Universal Motors, that will operate on either direct or alternating current (any cycle), can be furnished at same price as regular A. C. Motors.

These ratings are based on blowers being placed in close proximity to forges, and supply pipes of ample size and shortest possible length being used. Bends should only be included when absolutely necessary, and then made with long, sweeping curves, avoiding sharp angles.

A separate blower for each forge is advisable, as piping is reduced to a minimum; higher efficiency can also be attained, as the power consumed is always in proportion to the number of forges in use.



BUFFALO FORGE COMPANY



Buffalo Stationary Down Draft Forges

Buffalo Down Draft Forges are substantially constructed of either heavy cast iron or steel plate. Their first cost is moderate—the cost of maintenance practically nothing. These forges taken from buildings destroyed by fire have been reinstalled without repairs.



Buffalo Down Draft Forge No. 07 T.

The down draft hood of heavy cast iron is adjustable to any position, it can be drawn close to the fire or thrown back out of the way, according to the requirement of the work in hand.



Buffalo Down Draft Forge No. 0D.

This hood catches and removes every bit of smoke, soot and gas generated by the fire, by means of down draft suction through underground piping. There is no unsightly overhead piping to obstruct the view or interfere with the handling of heavy work.

Write for Catalog 178 J



BUFFALO FORGE COMPANY



Buffalo Engines



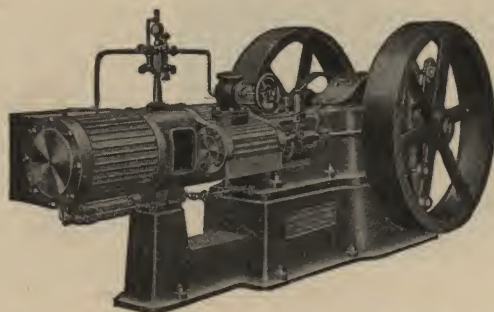
Buffalo Vertical High-Speed Engine, Class "O"

Buffalo Automatic High Speed Engines are built either simple or compound, in horizontal, vertical or marine types.

Simplicity of design, large bearing surfaces, smallest frictional losses, copious lubrication, smooth, easy running, high steam economy and close regulation—allowing of fluctuating loads—are the characteristics of every Buffalo Engine.

Careful and particular attention to the development of small-size engines, suitable for running exhausters and blowers, has produced a small engine in the various types that is without a peer. Small Buffalo Engines are arranged either for direct connection or belt drive, at the option of the purchaser.

A full descriptive catalog, containing the specifications of many types of Buffalo Engines, will be sent you on request.



Buffalo Horizontal Tandem Compound Engine, Class "A"